



Abstract

An electric generation station employs a solar array to heat a thermal transfer fluid that is supplied to a heat exchanger to produce steam. The heated steam drives a steam engine that operates either an electric generator to produce electricity or a pump assembly. The pump assembly can pump water to an elevated location for use during peak times by flowing water downwardly past an electric generator. The electric generators can be pelton turbines. One or more thermal fluid storage facilities can be used to store heated fluid, and heat may also be stored in a heat retaining material. Additional optional features and combinations of optional assemblies are disclosed. A method of generating electricity with these systems is also described.